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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,941	08/21/2003	J. Patrick Thompson	MSFT-1749/302725.01	1302

41505　　　7590　　　03/13/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891		EXAMINER
		LY, CHEYNE D

ART UNIT	PAPER NUMBER
2168	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/646,941	THOMPSON ET AL.
	Examiner	Art Unit	
	Cheyne D. Ly	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 February 2007 and 13 November 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-84</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-84</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>February 02, 2007</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR

1.17(e) has been timely paid, the finality of the previous Office action has been

withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 02, 2007

has been entered.

2. The IDS, field February 02, 2007, has been considered.

CLAIM REJECTIONS - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-18, 33-59, 62-76, and 79-84 are rejected under 35 U.S.C. 102(b) as being

anticipated by D'Andrea & Janus (1996) (D'Andrea hereafter).

CLAIM INTERPRETATIONS

5. It is noted that D'Andrea discloses "four fundamental object extensions…Taken together

with extension #1, class composition, the data model is a Directed Acyclic Graph

(DAG)" (page 71, last paragraph). The disclosure anticipates the pluralities of

relationships of the claimed invention as discussed below. Further, the citation portion of

D'Andrea discloses 4 types of objects (Items) as defined by the instant specification

(page 32). The objects (Items) anticipate the limitations of first and second Items

required by the claims as discussed below.

6. It is note that D'Andrea does not explicitly disclose the limitation of "boundaries." The

instant specification describes the "boundaries" as the Item being represented by its

properties (including complex property types, extensions, and so forth) (paragraph

[0327]-[0330]). D'Andrea describes objects can be as simple as single binary bit, as

complex as a aircraft carrier wherein objects are defined in terms of other objects

(boundaries). Further, attributes may refer to other objects or may be of some atomic

scalar base datatype such as a numeric, character string, etc. (list) (page 72, second

paragraph). It is noted that the cited disclosure by D'Andrea (page 71, last paragraph,

page 72, second paragraph) has been interpreted to anticipate the new limitation of "each

of said Items having a boundary comprising an item type, applicable subtype information,

complex type properties and extensions if any, and a list of the other Items owned by the

Item" as defined by the instant application (paragraph [0327]-[0330]) of the published

application).

BASIS FOR PRIOR ART

7. In regard to claim 1, D'Andrea discloses a computer-readable medium with computer-

readable instructions for a hardware/software interface system for a computer system

(pages 73-74, Balanced Client-Server Architecture section, and pages 75 and 76, 3rd

paragraph), wherein said hardware/software interface system manipulates a plurality of

discrete units of information (page 72, 2nd paragraph), said items interconnected by a

plurality of Relationships managed by said hardware/software interface system (page 71,

last paragraph), each of said Items having a boundary comprising an item type, applicable

subtype information, complex type properties and extensions if any, and a list of the other

Items owned by the Item (page 71, last paragraph, page 72, second paragraph).

8. In regard to claim 2, a first Item has a relationship from itself to a second Item (page 71,

last paragraph).

9. In regard to claim 3, the Relationship from said first Item to said second Item logically

denotes in said hardware/software interface system that the said second Item is public and

accessible to said first Item (page 72, 2nd paragraph, and page 73, lines 3-4). It is noted

that the disclosure of an object-oriented data model comprising inheritance and

encapsulation wherein shared attributes may be stored once in the class instance and

shared amongst all instances of the class reasonably support the limitation of "second

Item is public and accessible to said first Item."

10. In regard to claim 4, the first item is an Item Folder (page 71, last paragraph and page 71,

last paragraph). It is noted the disclosure of "class" by D'Andrea has been interpreted as

an Item Folder as described by the instant specification (page 37).

11. In regard to claim 5, the second Item is an Item Folder (page 71, last paragraph and page

71, last paragraph). It is noted that D'Andrea discloses "The datatype of a column can be

a class" (page 71, last paragraph) and a plurality of datatypes (page 71, last paragraph).

Therefore, the disclosure by D'Andrea of a plurality of different classes has been

interpreted as the second Item is an Item Folder (class).

12. In regard to claim 6, the second Item is a Category (page 71, last paragraph). It is noted the disclosure of "collections" by D'Andrea has been interpreted as a Category as described by the instant specification (page 37).

13. In regard to claim 7, the second Item is an Item that is not an Item Folder or a Category (page 71, last paragraph). It is note the disclosure of "attribute" and "Methods" have interpreted as an Item that is not an Item Folder or a Category.

14. The citation above anticipates claims 8-18 and 33-46.

15. In regard to claim 47, each Item from among said Items has a relationship to at least one other Item (page 71, last paragraph).

16. In regard to claim 48, a subset of Items comprise Item Folders (page 72, 2nd paragraph, and page lines 6-7).

17. The citation above anticipates claims 49 and 50.

18. Further, the citation above anticipates the system and method recited by claims 51-59, 62-76, and 79-84.

RESPONSE TO ARGUMENTS

19. The instant response is directed to the arguments filed November 13, 2006. Applicant argues "D'Andrea do not teach or suggest boundaries comprising (1) an item type, (2) applicable subtype information, (3) complex type properties and extensions if any, and (4) a list of the other Items owned by the Item.'" Applicant's argument is not persuasive because D'Andrea describes the argued limitations as discussed below. D'Andrea (page 75, 3rd paragraph) discloses an extensive collection of GLO classes (well known in the art as a data type) (1). "These methods may by incoporated into classes which inherit

from UniSQL's GLO class (or any of its subclasses)" (well known in the art as define a

data subtype) (2). "GLOs may be used for a variety of complex object types" (3). Lastly,

"GLOs may be used for a variety of complex object types inlcuding text, html, audio,

image, video, HotJava applets" (list of other items owned by GLO via inheritance) (4).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

21. This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

22. Claims 19-32, 60, 61, 77, and 78 are rejected under 35 U.S.C. 103(a) as being

unpatentable over D'Andrea & Janus (1996) (D'Andrea hereafter) as applied to claims 1-

18, 33-59, 62-76, and 79-84 above, and further in view of Barker (2000).

23. D'Andrea describes the limitations to claims 1-18, 33-59, 62-76, and 79-84 as discussed above. However, D'Andrea does not describe the limitation of "Item does not have a Relationship to said first Item" and "wherein a lack of a Relationship from said second Item to said Item logically denotes in said hardware/software interface system that said first Item is private an inaccessible to said second Item."

24. D'Andrea describes an improvement for the next generation DBMS that is fast and cost-effective by taking advantage of the flexibility, productivity, and performance benefits of OO modeling (Abstract etc.). Barker describes software objects (page 1) and "what does it take to be a successful object modeler" (page 54). An artisan of ordinary skill in the art at the time of the instant invention would have been motivated by the improvement described by D'Andrea to improve the method of D'Andrea with the OO modeling technique described by Barker.

25. In regard to claim 19, Barker describes second Item does not have a Relationship to said first Item (page 94, Private visibility section).

26. In regard to claim 20, Barker describes a lack of a Relationship from said second Item to said first Item logically denotes in said hardware/software interface system that said first Item is private and inaccessible to said second Item (page 94, Private visibility section).

27. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the computer-readable medium, system and method as described by D'Andrea and Barker.

28. Further, it would have been obvious to one having ordinary skill in the art at the time of

the invention was made to use the computer-readable medium, system and method as

described by D'Andrea and Barker as recited in claims 21-32, 60, 61, 77, and 78.

RESPONSE TO ARGUMENTS

29. The instant response is directed to the arguments filed November 13, 2006. Applicant

argues that "Barker does not disclose or suggest boundaries for the objects as claimed."

Applicant's argument is not persuasive because D'Andrea describes the required

boundaries as set forth above.

<div align="center">CONCLUSION</div>

30. Patent applicants with problems or questions regarding electronic images that can be

viewed in the Patent Application Information Retrieval system (PAIR) can now contact

the USPTO's Patent Electronic Business Center (Patent EBC) for assistance.

Representatives are available to answer your questions daily from 6 am to midnight

(EST). The toll free number is (866) 217-9197. When calling please have your

application serial or patent number, the type of document you are having an image

problem with, the number of pages and the specific nature of the problem. The Patent

Electronic Business Center will notify applicants of the resolution of the problem within

5-7 business days. Applicants can also check PAIR to confirm that the problem has been

corrected. The USPTO's Patent Electronic Business Center is a complete service center

supporting all patent business on the Internet. The USPTO's PAIR system provides

Internet-based access to patent application status and history information. It also enables

applicants to view the scanned images of their own application file folder(s) as well as

general patent information available to the public.

31. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-

9199. The USPTO's official fax number is 571-272-8300.

32. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716.

The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim Vo, can be reached on (571) 272-3642.

C. Dune Ly
Patent Examiner
3/1/07